

## TO THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: The patent application of Tiller and Marguerettaz  
Serial No.: 10/578,195  
Filing date: 4 Mai 2006 (§ 371(c)(1),(2),(4))  
Title: Low Gloss Ink-Jet Ink  
Group Art Unit: 2853  
Examiner: Martin, Laura E.

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Commissioner for Patents  
P.O.Box 1450  
Alexandria, Virginia 22313-1450

**DECLARATION OF THOMAS TILLER**

Sir,

I, Thomas Tiller, Doctor of Natural Sciences (Chemistry) of the *Georg-August-Universität*, Göttingen, Germany (Dr. rer. nat.) since 1990 state the following:

Patent Application No. 10/578,195 entitled 'Low Gloss Ink-Jet Ink' is a technical development on inkjet ink formulations, carried out at our research laboratories at the premises of SICPA Product Security S.A., Avenue de Florissant 41, CH-1008 Prilly, Switzerland.

In addition to the information given in our Patent Application No. 10/578,195, published as US 2007/0165087 A1, I would like to make the following statement in

order to explain the preferred selection of binders, stated in the published description under paragraph [0016]: "Preferably, the binders are chosen from vinyl chloride- and vinyl acetate copolymers, nitrocellulose or polyvinyl butyral."

Our preference for these classes of resins over the other tested resins is based on the better inkjet printing results (print quality) which can be achieved.

Acrylic resins have been tested within the scope of our invention, but were not a preferred option in our applications, although they did show the desired matting effect. Acrylic resins typically do not provide sufficient viscosity (i.e. in the range of 5 to 8 mPa.s at 25°C) within the preferred concentration range of 4 to 20 weight-%. A too low viscosity, on the other hand, leads to poor print quality.

Styrene-maleic copolymer resins have also been tested within the scope of our invention, but were not a preferred option in our applications, although they did show the desired matting effect. These resins typically do not provide a sufficiently regular droplet formation in the inkjet printing equipment. This, in turn, results in a very poor print quality.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that the making of wilful false statements or the like is punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patents issued thereon.

Date: 20 December 2007



Thomas Tiller